SECRET [redacted] 25X1

OUT65088

R 141409Z MAY 68
FM NPIC WASHDC
TO DIA
BT
S E C R E T [redacted] CITE NPIC 3749. 25X1
ATTN: [redacted] 25X1

1. GIANT SCALE MISSION 5010 WAS FLOWN ON 27 APRIL 1968 AND THE FILM WAS PROCESSED AT [redacted] THE MISSION EMPLOYED 25X1
THE USUAL SENSORS: FIVE OPTICAL, [redacted] THE ONLY 25X1
MATERIALS EVALUATED ARE THE PRODUCTS FROM THE OPERATIONAL (LEFT AND RIGHT) AND THE TECHNICAL (LEFT AND RIGHT) OBJECTIVE CAMERAS. THE TERRAIN OBJECTIVE CAMERA MATERIAL WAS USED TO DEVELOP AN ACCURATE TRACK OF THE MISSION AND TO DETERMINE THE AREAS OF 75 PERCENT CLOUD FREE PHOTOGRAPHY. SINCE RESOLUTION TARGETS ARE NOT IMAGED, ALL GROUND RESOLUTION FIGURES ARE EMPIRICAL ESTIMATES BASED ON EVALUATIONS OF SIMILAR SENSORS. THE GROUND RESOLUTIONS FIGURES IMPLY A BAR AND A SPACE, THUS A FIGURE OF [redacted] INDICATES THAT A [redacted] OBJECT 25X1 25X1
COULD BE DETECTED.

2. CLOUDS OBSCURE OR SEVERELY DEGRADE 60 PERCENT OF THE IMAGERY. HAZE WAS A DEGRADING FACTOR ON APPROXIMATELY 60 PERCENT OF THE

DISTRIBUTION		
CY	OFFICE	PI
1	FILE	25X1
2	CABLE SEC.	
	PP&B/RD	
	SECUR.	
3	DSSG	
	PSG/OC	
	RRD	
	REPRO	
	AID	25X1
	IEG	
	PROD	
	SCIEN	
	WEST	
	EAST	
	M&S	
	PGM	
	IAS	
	DIA-XX4	
	SPAD	
	DIA-AP	
	[redacted]	25X1
	CMX	
		25X1

ADVANCE CY
SANITIZED
WITH TEXT

PAGE 2 RUEADJU 55 S E C R E T [redacted]
REMAINING IMAGERY.

3. THE INTERPRETATION SUITABILITY OF THE IMAGERY IS CONSIDERED GENERALLY FAIR. CLOUDS AND HAZE ARE THE MAJOR DEGRADING FACTORS PRECLUDE A MORE DEFINITIVE INTERPRETATION SUITABILITY STATEMENT. THE BASE GROUND RESOLUTIONS DETECTED IN THE MISSION WERE LOCATED NEAR NADIR. THEY WERE DERIVED FROM THE ORIGINAL NEGATIVES AND ARE AS FOLLOWS:

A. RIGHT OPERATIONAL OBJECTIVE CAMERA - [redacted]
B. LEFT OPERATIONAL OBJECTIVE CAMERA - [redacted]
C. RIGHT TECHNICAL OBJECTIVE CAMERA - NOT ESTIMATED
D. LEFT TECHNICAL OBJECTIVE CAMERA - NOT ESTIMATED

ONLY A SMALL AMOUNT OF IMAGERY WAS AVAILABLE TO ESTIMATE QUALITY WHERE CLOUDS AND HAZE ARE NOT A DEGRADING FACTOR.

4. THE ORIGINAL NEGATIVES AND SECOND GENERATION REPRODUCTIONS WERE AVAILABLE FOR THIS EVALUATION.

A. TECHNICAL OBJECTIVE CAMERAS: APPROXIMATELY 35 PERCENT OF THE PHOTOGRAPHY WAS ACQUIRED ABOVE 30 DEGREES OBLIQUITY. THE REPRODUCTIONS ARE OF SATISFACTORY QUALITY. NO ATTEMPT WAS MADE TO DETERMINE GROUND RESOLUTIONS BECAUSE OF THE PRESENCE OF HAZE THROUGHOUT THE MISSION. ATMOSPHERICS ALSO ATTENUATE

PAGE 3 RUEADJU 55 S E C R E T [redacted]
THE CONTRAST AND INCREASE THE DENSITY. BANDING, POSSIBLY ASSOCIATED WITH VIBRATION IS PRESENT THROUGHOUT THE MISSION.

(1) LEFT TECHNICAL OBJECTIVE CAMERA (AL), SN 64-33: THERE ARE RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS THROUGHOUT THE MISSION, IN ADDITION TO STREAKS SPACED 1.25 INCH APART ACROSS THE ENTIRE FORMAT. TITLE TRANSFER OCCURS INTERMITTENTLY AND TITLING IS PARTIALLY MISSING ON EVERY OTHER FRAME IN FRAMES 38-88. A CAMERA OFF/ON WITH ASSOCIATED FOG AREAS, INDUCED BY MINOR LIGHT LEAKS, OCCURS BETWEEN FRAMES 98/99. TWO PLUS DENSITY STREAKS 2.0 AND 7.5 INCHES FROM THE TITLED EDGE ARE FIRST OBSERVED

SECRET [redacted] 25X1

GROUP 1
Excluded from automatic downgrading and declassification

IN FRAME 99 AND ARE PRESENT INTERMITTENTLY THROUGHOUT THE REMAINDER OF THE MISSION. EDGE STATIC IS PRESENT ALONG BOTH EDGES OF THE NEGATIVE. EMULSION LIFTS ARE PRESENT IN FRAMES 129, 131, 183, 201, AND 314. FRAME 320 IS THE LAST TITLED FRAME OF THE LEFT TECHNICAL OBJECTIVE CAMERA.

(2) RIGHT TECHNICAL OBJECTIVE CAMERA (AR), SN 64-08: THERE ARE RANDOM MINUS DENSITY LINES PARALLEL TO THE MAJOR AXIS THROUGHOUT THE MISSION, IN ADDITION TO STREAKS SPACED 0.25 INCH APART ACROSS THE ENTIRE FORMAT. A PLUS

 25X1

DENSITY STREAK, LOCATED 2.0 INCHES FROM THE TITLED EDGE AND PARALLEL TO THE MAJOR AXIS IS PRESENT INTERMITTENTLY THROUGH THE MISSION. MINUS DENSITY SPOTS ARE PRESENT IN FRAMES 98, 101, AND 119. FRAME 285 IS THE LAST TITLED FRAME IN THE RIGHT TECHNICAL OBJECTIVE MATERIAL.

B. OPERATIONAL OBJECTIVE MATERIAL: THIS MATERIAL PROVIDES GROUND RESOLUTIONS OF [redacted] AT NADIR. THE DENSITY AND CONTRAST OF THE NEGATIVES APPEAR SATISFACTORY. 25X1

(1) LEFT OPERATIONAL OBJECTIVE CAMERA (CL) SN 4013: THERE IS NO BIAS BETWEEN THE TITLED FRAME NUMBER AND THE EVENTS COUNTER. TIMING DOTS ARE NOT PRESENT ON ANY FRAME OF THE MISSION. FOGGING, ASSOCIATED WITH ILLUMINATION OF THE DATACHAMBER, ENCROACHES APPROXIMATELY 0.25 INCH INTO THE IMAGERY OF ALL FRAMES. SPLICES ARE PRESENT BETWEEN FRAMES 522/523, 1044/1045, AND 1346/1347. CAMERA OFF/ON WITH ERRATIC SPACING BETWEEN FRAMES OCCURS BETWEEN FRAMES 1085/1086. FRAME 1087 IS THE LAST TITLED FRAME OF THE LEFT OPERATIONAL OBJECTIVE MATERIAL.

(2) RIGHT OPERATIONAL OBJECTIVE CAMERA (CR) SN-4030: THE EVENTS COUNTER HAS A MINUS ONE BIAS WITH THE TITLED

 25X1

FRAME NUMBER. FRAMES 1 TO 39 CONTAIN NO TIME TRACK. THE TIME TRACK FOR THE REMAINING FRAMES BEGIN 2.75 INCH AFTER THE START OF SCAN AND EXTEND THE SAME DISTANCE BEYOND THE END OF SCAN. A SPLICE IS PRESENT BETWEEN FRAMES 522/523 AND 1044/1045. NUMEROUS FAINT MINUS DENSITY LINES PARALLEL TO THE FILM MAJOR AXIS ARE PRESENT THROUGHOUT THE MISSION. THE IMAGERY NEAREST NADIR IS DEGRADED IN A SIMILAR MANNER AS REPORTED FOR UNIT SN-4716 ON MISSION 5108. THE DEGRADATION IS DETECTED ON APPROXIMATELY THE FIRST 1.2 INCH OF SCAN. THIS ANOMALY HAS ALSO BEEN REPORTED ON MOST PREVIOUS MISSIONS.

4. MISSION RECORDER SYSTEM (MRS) CORRELATION TO FILM:

A. THE MRS TRANSMISSION, AS RECEIVED BY NPIC, APPEARED SATISFACTORY. HOWEVER, THE MISSION NUMBER RECEIVED WITH THIS DATA WAS 5011 VICE 5013. ALL DATA IN THE MRS WAS SATISFACTORY.

B. TECHNICAL OBJECTIVE CAMERAS: A FAIR TO GOOD CORRELATION WAS ACHIEVED FOR BOTH CAMERAS. THE CLOCK OF THE LEFT CAMERA SHOWED A MINUS 2-4 SECOND BIAS THROUGHOUT THE MISSION. ALSO, THE TITLED FRAME NUMBER IS ONE HIGHER THAN THE MRS FRAME NUMBER. THE RIGHT CAMERA CLOCK SHOWED A MINUS THREE SECOND BIAS IN THE BEGINNING OF THE MISSION AND DRIFTED TO A PLUS TWO SECOND BIAS

PAGE 6 RUEADJU 55 S E C R E T [redacted] 25X1
AT THE END OF THE MISSION. AS WITH THE LEFT CAMERA, THE TITLED FRAME NUMBER OF THE RIGHT CAMERA IS ONE HIGHER THAN THE MRS FRAME NUMBER.

C. OPERATIONAL OBJECTIVE CAMERAS: THE CORRELATION ACHIEVED ON BOTH CAMERAS IS CONSIDERED FAIR TO POOR. THE LEFT CAMERA HAD AN OFF/ON TWO FRAMES FROM THE END OF THE MISSION. THIS HELPED IN CORRELATING THE MRS TO THE FILM. THE CLOCK WAS WITHIN ONE SECOND OF THE MRS THROUGHOUT AND THE FRAME NUMBERS CORRESPONDED THROUGH THE ENTIRE MISSION. THE LINE OF DATA ASSOCIATED WITH FRAME ONE OF THE RIGHT CAMERA IS BAD. ALSO, THE RIGHT CAMERA DID NOT HAVE AN OFF/ON. THEREFORE, IT WAS ASSUMED THAT THE MRS FRAME NUMBERS WERE CORRECT. IF THIS WAS THE CASE, THE CLOCK HELD A MINUS SIX SECOND BIAS IN THE BEGINNING OF THE MISSION AND DRIFTED TO MINUS 70 SECONDS AT THE END OF THE MISSION. THIS DRIFT PROVED DETRIMENTAL TO AN EXACT CORRELATION.
GP-1

S E C R E T [redacted] 25X1

END OF MESSAGE